4 County Complex Court
P. O. Box 2266
Woodbridge, VA 22195-2266

Phone (703) 335-7900
Fax (703) 335-7905
www.pwcsa.org

Service Authority

November 5, 2010

Submitted Online (www.regulations.gov)
Water Docket
Environmental Protection Agency
Mailcode: 28221T
1200 Pennsylvania Ave., NW
Washington, DC 20460

RE: Water Docket ID No. EPA-R03-OW-2010-0736 – Draft Chesapeake Bay Total Maximum Daily Load

COMMENTS OF THE
PRINCE WILLIAM COUNTY SERVICE AUTHORITY
REGARDING U.S. EPA'S DRAFT CHESAPEAKE BAY TMDL

On September 7, 2010, the Commonwealth of Virginia ("Virginia") issued a Chesapeake Bay TMDL Phase I Watershed Implementation Plan ("Draft WIP"). On September 22, 2010, the United States Environmental Protection Agency ("EPA") issued a Notice of Availability of the Draft TMDL and request for public review and comment on the Draft TMDL in the *Federal Register* regarding the development of a total maximum daily load ("TMDL") for the Chesapeake Bay Watershed. On September 24, 2010, EPA issued a DRAFT Chesapeake Bay Total Maximum Daily Load ("Draft TMDL"). The Prince William County Service Authority (PWCSA) hereby submits the following comments in response to the EPA Federal Register Notice and Draft TMDL.

PWCSA provides water and sewer service to the 250,000 citizens of Prince William County. Located approximately 20 miles southwest of the nation's capital, Prince William County is part of the growing Northern Virginia community. PWCSA operates the H.L. Mooney Water Reclamation Facility (WRF) (Permit No. VA0025101), which serves most of the eastern portion of Prince William County. PWCSA also is a substantial partner in the Upper Occoquan Service Authority (UOSA) which operates the Millard H. Robbins Advanced Wastewater Treatment

Facility (Permit No. VA0024988). UOSA serves most of the western portion of Prince William County, portions of Fairfax County, the City of Manassas and the City of Manassas Park.

PWCSA has just requested a Certificate to Operate (CTO) the upgrade and expansion of the H.L. Mooney WRF to 24 MGD. The capital cost of the upgrade and expansion was approximately $120 million. The rate payers of Prince William County will bear the entire costs of the additional Operations and Maintenance (O&M) costs of running the upgraded facility. The upgrade was primarily driven by the requirements of the Chesapeake Bay program as codified in the Virginia Nutrient General Permit (VAN010018). The waste load allocation (WLA) assigned to our facility requires a limit of technology (LOT) concentration for Total Nitrogen of 3 mg/l at our expanded design flow of 24 MGD. H.L. Mooney WRF has met the extremely stringent phosphorous requirements of the Virginia Potomac Embayment Standards (PES) for decades. The PES requires monthly TP limit of 0.18 mg/l and a weekly maximum of 0.27 mg/l with corresponding mass loads. The Virginia Nutrient General Permit Total Phosphorous WLA was based on the sub-LOT concentration of 0.18 mg/l at a design flow of 24 MGD.

A major municipal upgrade and expansion of this nature is expected to serve the community's needs for the 20-year expected life. Clearly, regulatory stability is required to maintain public support for public expenditures of this magnitude. PWCSA believed, and told our rate-payers, that the upgrade and expansion of the H.L. Mooney WRF did our part, and more, to meet the goals of the Chesapeake Bay program as defined in the Virginia Potomac Tributary Strategy and later codified in the Virginia Nutrient General Permit. We strongly object to any attempt by EPA to reduce the WLA currently reserved for the H.L. Mooney WRF via any mechanism during the TMDL process.

PWCSA is particularly concerned regarding the proposed EPA TMDL backstop WLA for the UOSA water reclamation plant. First, the reduction in UOSA's WLA endangers the water quality of the Occoquan Reservoir. The Occoquan Reservoir provides drinking water to approximately 1.7 million Northern Virginia residents, including many residents of Prince William County. Second, the required upgrades to meet the proposed backstop WLA at UOSA would represent a very substantial cost to our ratepayers for no improvement in the water quality of either the Potomac River or the Chesapeake Bay. PWCSA delivers approximately 36% of the flow to the UOSA plant.

UOSA is already one of the most advanced wastewater treatment plants in the country and has supported indirect reuse for over 30 years. It meets or exceeds most drinking water standards. Considering that its flow can be well over 50% of the input to the Occoquan Reservoir during low flow periods, it certainly should discharge truly exceptional quality water. However, the health of the Reservoir also depends on UOSA to supply much of the nitrate that would have to be removed if the backstop TN WLA is included in the final TMDL . The Occoquan Watershed Monitoring Laboratory (OWML) has studied the Occoquan in depth since 1974. OWML is operated by the Virginia Tech Department of Civil Engineering, and it is overseen by the Occoquan Watershed Monitoring Subcommittee (OWMS) on behalf of the State Water Control Board. OWML has determined, and repeatedly proved, that nitrate levels in the Occoquan serve to trap phosphorous in the sediments. Without the required levels of nitrate, OWML studies and models have determined that the Occoquan Reservoir's water quality would degrade

substantially. Given the key role of the Reservoir in the interconnected Northern Virginia system, degradation of the Reservoir could be deleterious to the health and well-being of over a million residents. We urge the EPA in the strongest possible terms to remove UOSA from the list of municipal plants facing backstop WLAs.

In addition to the likely impairment of the areas drinking water supply, the imposition of a 4 mg/l TN based WLA on the UOSA facility would do virtually nothing to improve the water quality of the Potomac River or Chesapeake Bay. OWML has had an active monitoring program for over three decades and has decisively shown that very little of the UOSA nitrogen discharge passes over the Occoquan Dam to reach the Potomac River and the Bay. In fact, OWML research has demonstrated that reducing nitrate in the UOSA effluent could increase ammonia and phosphorous desorption rates from the reservoir sediments and potentially increase nutrient discharges to the Potomac River and Chesapeake Bay. Therefore, the expenditure of tens of millions of dollars at UOSA to reduce nitrogen discharges would have a negligible positive impact on any downstream waters and may in fact increase nutrient discharges from the Occoquan.

UOSA has submitted detailed comments regarding water quality in the Occoquan Reservoir based on the scientific monitoring and modeling performed by the OWML. PWCSA staff has served on the OWMS and are intimately familiar with the work of OWML. PWCSA strongly supports the comments provided by UOSA, including the technical exhibits detailing OWML studies, and incorporates them into its comments by reference.

PWCSA staff has also served in a variety of positions in the Virginia Association of Municipal Wastewater Agencies and the Virginia Nutrient Credit Exchange Association. PWCSA strongly supports the comments provided by VAMWA. PWCSA fully endorses VAMWA's positions on the need to maintain regulatory stability for municipal wastewater treatment facilities, the need to correct flaws in the Bay model and the importance of applying cost-benefit analyses in developing the TMDL.

Thank you for the opportunity to comment on the proposed Chesapeake Bay TMDL. PWCSA hopes that you appreciate the efforts made by the Authority and Virginia municipal wastewater treatment facilities. We urge you to adopt a more balanced and reasonable approach to the development of the Bay TMDL.

Sincerely,

Dean E. Dickey
General Manager
Prince William County Service Authority

cc: Charles Weber, PWCSA
Charles Boepple, UOSA
Alan Pollock, VADEQ